

REMARKS

Upon entry of the above amendment, the drawings will have been amended. Accordingly, claims 1-24 and 26-36 are pending with claims 1, 31 and 34 being in independent form. Claims 4-20 and 26-30 stand withdrawn by the Examiner.

***Summary of the Official Action***

In the instant Office Action, the Examiner considered all of the documents submitted in the IDS filed on April 24, 2008. The Examiner additionally objected to the drawings on the basis of the alleged deficiencies noted in the form PTO-948. Claims 4-20 and 26-30 were again withdrawn by the Examiner. Finally, the Examiner rejected claims 1-3, 21-25 and 31-36 over the art of record. By the present amendment and remarks, Applicant submits that the objections and rejections have been overcome, and respectfully requests reconsideration of the outstanding Office Action and allowance of the present application.

***Objection to the Drawings***

Applicant submits that the objection to the drawings based on the alleged deficiencies noted in the form PTO-948 is moot.

By this Amendment, Applicant has submitted formal drawings which are believed to address each of the alleged informalities noted in the form PTO-948.

Accordingly, Applicant respectfully requests that the above-noted objection be withdrawn.

***Rejections Under 35 U.S.C. § 103***

**Claims 1-3, 21-24 and 31-35 under 35 U.S.C. § 103(a) as being unpatentable over AT 405 560 in view of DE 297 03 962. Applicant traverses this rejection.**

**Claim 1**

Independent claim 1 recites a configuration for combining flat structural components which utilizes the combination of a tongue and groove connection wherein both the tongue and groove have divergent sides and integrated locking mechanisms and which also includes a pre-applied adhesive layer or a pre-applied layer of a substance which activates adhesive is applied off-site and is present on the groove at least in the area of its divergent sides or on the tongue at least in the area of its divergent wedge-shaped area, or on both areas.

The Examiner acknowledges that AT '560 lacks the recited adhesive between the tongue and groove joints, but explains that DE '962 teaches the use of a pre-applied contact adhesive in a tongue and groove joint to establish a secure engagement between the panels. Applicant respectfully disagrees that the asserted combination of these documents discloses or suggests the combination of features recited in claim 1.

Applicant does not dispute that DE '962 apparently teaches a tongue and groove connection between panels, as well as the factory application of glue to adjoining areas, and that AT '560 teaches a tongue and groove with locking mechanisms. However, the Examiner has failed to appreciate that, among other things, the factory application of an

adhesive is not a *per se* disclosure of a pre-applied adhesive or pre-applied substance because, as will be explained in detail below, a pre-applied adhesive or substance is a type of adhesive or substance that is simply not disclosed or suggested by the applied documents.

Applicant also emphasizes that since DE '962 teaches a contact adhesive and, other than the adhesive, lacks any system in the tongue or groove which can create a secure or locking connection, there is no basis to look to the disclosure of AT '560, at least because AT '560 teaches a locking system between the tongue and groove which does not require an adhesive to provide a secure joint. The locking connection of AT '560 essentially renders unnecessary the need for any adhesive to provide a secure or locking joint. This is already accomplished by the locking mechanisms in the tongue and groove of AT '560. Moreover, even assuming that DE '962 discusses the possible use of a heat activatable contact adhesive, Applicant is unaware of any contact adhesive which is heat activatable. Furthermore, it is submitted that, at best, DE '962 teaches the mere factory application of an adhesive to form a joint at the factory. In short, because AT '560 lacks any adhesive at all, one having ordinary skill in the art would not, based on the disclosure of AT '560 which teaches not to use adhesive in the joint, seek to add the adhesive of DE '962 to the panels in AT '560.

Applicant directs the Examiner's attention to the attached apparently non-precedential decision *Ex parte MANDRUSOV* which, on page 5, cites *In re Gurley* and specifically explains:

A reference may be said to teach away when a person of ordinary skill, upon

[examining] the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path that was taken by the applicant.

Since DE '962, at best, teaches the mere factory application of an adhesive to form a joint at the factory and AT '560 lacks any adhesive at all, one having ordinary skill in the art following the path set out in DE '962 would not seek to add the adhesive of DE '962 to AT '560. This is because DE '962 at least specifically teaches away from using an adhesive which of the "pre-applied" type as discussed below, i.e., an adhesive that is applied in one location, i.e., off-site, and then activated in another location, e.g., on site. Furthermore, because, as explained above, DE '962 teaches to use adhesive in a non-locking tongue and groove joint, and AT '560 teaches a locking tongue and groove joint without any adhesive, one having ordinary skill in the art, following the path set out in either AT '560 or DE '962, simply would not seek to add the adhesive of DE '962 to the panels of AT '560. Again, this is because, unlike AT '560, DE '962 specifically does not require any adhesive to produce a secure or locking joint.

Applicant additionally also directs the Examiner's attention to the attached apparently non-precedential decision *Ex parte BLAICHER* which, in the paragraph bridging pages 5-6, explains that obviousness cannot be found when prior art disclosures teaches away from their combination by doing the opposite, i.e., one reference specifically teaches to store information while the other specifically teaches not to store information. This is analogous to AT '560 teaching not to use any adhesive in the disclosed joint, while DE '960 teaches to use adhesive – which is the opposite of not using adhesive. This is also analogous to DE '960 disclosing the use of an

adhesive in a joint that is formed essentially right after the application of the adhesive and/or at the same location. This is arguably the opposite of AT '560 which teaches not to use any adhesive in the disclosed joint at any time. Furthermore, by applying adhesive to a joint essentially contemporaneously with the joining of the panels, DE '960 also teaches precisely the opposite of the invention which specifically requires the application of a pre-applied adhesive or substance off-site.

The deficiencies of these documents are simply too notable to be ignored. For example, AT '560 does not teach the use of any adhesive in a locking tongue and groove joint. Moreover, DE '962 merely discloses a contact glue which requires that the mating surfaces "be pressed together with a considerable degree of pressure, making it impossible to additionally adjust the glued joint in the longitudinal direction for the purpose of closing a transverse joint." Thus, even if these documents were properly combinable (which Applicant disputes), they would nevertheless not disclose or suggest the unique combination of three features in the connection of flat structural panels: that is, (1) a tongue and groove connection with divergent sides; (2) that both the tongue and the groove have a locking mechanisms or elements; and (3) that either the tongue, or the groove, or both of these devices, have a pre-applied adhesive or an adhesive substance as defined above.

Applicant emphasizes that, according to the invention, the application of the adhesive or the substance at least to corresponding divergent surfaces of the tongue and groove and connecting the tongue and groove, causes the tongue to become bonded to the groove by virtue of the divergent surfaces being pushed and remaining in

tension. This ensures an especially reliable bonding of the connection. Furthermore, because of the substance placement and the use of the locking elements, the arrangement is such that locking elements help ensure that the substance on the divergent sides cannot come up and out of the connection onto the surface of the panels. Thus, the locking elements act as a locking device and as a device which prevents the spilling out of the adhesive substance. The pre-application of the adhesive or substance at least on the divergent sides also ensures it does not find its way into the locking elements – thereby ensuring a totally flat surface in the area of the connection of the panels. This is not the case in any of the prior art documents.

Nor would any proper combination of these documents recognize the numerous benefits noted above and/or achieve an automatically secure connection between flat structural panels. For example, the paragraph bridging pages 4 and 5 of the instant specification specifically explains the benefits of this connection as, among other things, reducing the amount of “maneuvers and manual stages involved in laying out the panels on site”. Other noted benefits of pre-applying the substance include: (i) ensuring that a sufficient but not excessive amount of adhesive is used in the connection, (ii) eliminating the problem of glue setting during installation, (iii) providing a seamless joint, and (iv) eliminating the possibility of a welling out of the substance which typically occurs when a glue is applied on site and which can form spots on the surface that must be removed immediately.

Applicant again notes that U.S. Patent No. 4,417,028 to AZEVEDO (a copy of which was previously provided) contains an accurate description of such substances.

Such substances are typically stable compositions which are prepared and pre-applied to “surfaces prior to the time of assembly, which will remain on the parts during normal storage and shipment, and which will cure upon mating with another part thereby imparting an effective and improved seal or bond.” See col. 1, lines 56-68 of AZEVDO.

Such substance also typically ensure that the pre-applied parts “can then be shipped or stored for substantial periods of time prior to cure” and are “dry to the touch. Finally, such substances may also have the attribute that “when crushed or ground by a mating surface, cures to a strong bond” (see col. 2, lines 1-22 of AZEVDO). Indeed, these properties, as well as other properties, are specifically acknowledged and noted on pages 5-14 of the instant specification in discussing examples of the types of substances which can be utilized in the invention.

Finally, Applicant reminds the Examiner that to the extent that the Examiner believes that he may construe the adhesive or adhesive substance language of claim 1 “broadly” to encompass the disclosed adhesive of DE ‘962, Applicant reminds the Examiner that the “broadest reasonable interpretation” standard must be one that “would be understood by one of ordinary skill in the art, taking into consideration the description of the applicant’s specification. *In re Morris*, 127 F.3D 1048, 1054-55, 44 USPQ2d 1023, 1027-28 (Fed. Cir. 1997)”. See page 3 of the attached non-precedential decision *Ex parte HADDAD*. At the very least Applicant is entitled to a definition of “pre-applied” which Applicant has established during prosecution. See page 4 of the attached non-precedential decision *Ex parte HADDAD*.

Because the combination of the above-noted documents fails to disclose, or even suggest, at least the above-noted features of the instant invention, Applicant submits that no proper combination of these documents renders unpatentable the combination of features recited in at least independent claim 1.

Claims 31 and 34

Independent claims 31 and 34 similarly recite the combination of a tongue and groove connection. Both the tongue and groove have divergent sides and locking elements and also includes a pre-applied adhesive layer or pre-applied substance which activates an adhesive applied off-site and being present on the groove at least in the area of the divergent sides or on the tongue at least in the area of the divergent wedge-shaped area, or on both areas.

The Examiner acknowledges that AT '560 lacks the recited adhesive between the tongue and groove joints, but explains that DE '962 teaches the use of a contact adhesive in a tongue and groove joint to establish a secure engagement between the panels. Applicant respectfully disagrees that the asserted combination of these documents discloses or suggests the combination of features recited in claims 31 and 34 for reasons that are similar to those noted above with regard to claim 1.

Again, the Examiner has ignored the noted deficiencies of these documents. For example, AT '560 does not teach the use of any adhesive in a locking tongue and groove joint. Moreover, DE '962 merely discloses a contact glue which requires that the mating surfaces "be pressed together with a considerable degree of pressure, making it impossible to additionally adjust the glued joint in the longitudinal direction for the



purpose of closing a transverse joint.” Thus, even if these documents were properly combinable (which Applicant disputes) they would nevertheless not disclose or suggest the unique combination of three features in the connection of flat structural panels: that is, (1) a tongue and groove connection with divergent sides; (2) that both the tongue and the groove have a locking mechanisms or elements; and (3) that either the tongue, or the groove, or both of these devices, have a pre-applied adhesive or an adhesive substance as defined above.

Applicant emphasizes that the application of the adhesive or the substance at least to corresponding divergent surfaces of the tongue and groove and connecting the tongue and groove, causes the tongue becomes bonded to the groove by virtue of the divergent surfaces being pushed and remaining in tension. This ensures an especially reliable bonding of the connection. Furthermore, because of the substance placement and the use of the locking elements, the arrangement is such that locking elements help ensure that the substance on the divergent sides cannot come up and out of the connection onto the surface of the panels. Thus, the locking elements act as a locking device and as a device which prevents the spilling out of the adhesive substance. The pre-application of the adhesive or substance at least on the divergent sides also ensures it does not find its way into the locking elements – thereby ensuring a totally flat surface in the area of the connection of the panels.

Because the combination of the above-noted documents fails to disclose, or even suggest, at least the above-noted features of the instant invention, Applicant

submits that no proper combination of these documents renders unpatentable the combination of features recited in at least independent claim 31.

Claims 2, 3, 21-24, 32, 34 and 35 are allowable at least because these claims depend from the above-noted independent claims.

**Claims 1-3, 21-24 and 31-36 under 35 U.S.C. § 103(a) as being unpatentable over AT 405 560 in view of DE 297 03 962 and further in view of U.S. Patent No. 6,004,417 issued to ROESCH et al.**

Claim 1

Again, independent claim 1 recites a configuration for combining flat structural components which utilizes the combination of a tongue and groove connection wherein both the tongue and groove have divergent sides and integrated locking mechanisms and which also includes a pre-applied adhesive layer or a pre-applied layer of a substance which activates adhesive is applied off-site and is present on the groove at least in the area of its divergent sides or on the tongue at least in the area of its divergent wedge-shaped area, or on both areas.

The Examiner acknowledges that AT '560 lacks the recited adhesive between the tongue and groove joints, but explains that DE '962 teaches the use of a pre-applied contact adhesive in a tongue and groove joint to establish a secure engagement between the panels. Finally, the Examiner cites ROESCH for its disclosure of a two-component adhesive.

Applicant respectfully disagrees that the asserted combination of these documents discloses or suggests the combination of features recited in claim 1 for the reasons noted above.

Applicant also disputes the relevancy of ROESCH, as this document is completely silent with regard to a pre-applied adhesive layer or activator substance. Whereas the invention relates to flat structural components or panels using a tongue and groove locking connection having a pre-applied adhesive or adhesive activator, ROESCH relates to a connection between plastic pipe parts which can be pre-applied with an adhesive (see Fig. 3).

Because the combination of the above-noted documents fails to disclose, or even suggest, at least the above-noted features of the instant invention, Applicant submits that no proper combination of these documents renders unpatentable the combination of features recited in at least independent claim 1.

#### Claims 31 and 34

Again, independent claims 31 and 34 similarly recite the combination of a tongue and groove connection wherein both the tongue and groove have divergent sides and locking elements and also includes a pre-applied adhesive layer or pre-applied substance which activates an adhesive applied off-site and being present on the groove at least in the area of the divergent sides or on the tongue at least in the area of the divergent wedge-shaped area, or on both areas.

The Examiner acknowledges that AT '560 lacks the recited adhesive between the tongue and groove joints, but explains that DE '962 teaches the use of a contact

adhesive in a tongue and groove joint to establish a secure engagement between the panels. The Examiner further asserts that ROESCH discloses of a two-component adhesive.

Applicant respectfully disagrees that the asserted combination of these documents discloses or suggests the combination of features recited in claims 31 and 34 for reasons that are similar to those noted above with regard to claim 1.

Again, Applicant also disputes the relevancy of ROESCH, as this document is completely silent with regard to a pre-applied adhesive layer or activator substance. Whereas the invention relates to flat structural components or panels using a tongue and groove locking connection having a pre-applied adhesive or adhesive activator, ROESCH relates to a connection between plastic pipe parts which can be pre-applied with an adhesive (see Fig. 3).

Because the combination of the above-noted documents fails to disclose, or even suggest, at least the above-noted features of the instant invention, Applicant submits that no proper combination of these documents renders unpatentable the combination of features recited in at least independent claims 31 and 34.

Claims 2, 3, 21-24 32, 33 and 35 are allowable at least because these claims depend from the above-noted independent claims.

**Claims 32, 33 and 35 under 35 U.S.C. § 103(a) as being unpatentable over AT 405 560 in view of DE 297 03 962 and further in view of any of U.S. Patent No. 6,398,902 issued to ROBINS et al., U.S. Patent No. 5,678,715 issued to SJOSTEDT et al., U.S. Patent No. 5,165,826 issued to PARASIN, and U.S. Patent No. 5,157,892 issued to RYTHER.**

Claim 32

Claim 32 recites the configuration of claim 31 and wherein the pre-applied adhesive layer or the pre-applied layer of a substance which activates an adhesive is applied in an amount which is insufficient to cause any excess to well out onto a decorative surface of the flat structural panels when the flat structural panels are joined together. No proper combination of the above-noted documents discloses or suggests these additional features.

The Examiner opines that the amount of adhesive which is applied would be obvious to one having ordinary skill in the art and alternatively that each of ROBINS, SJOSTEDT, PARASIN and RYTHER “recognize the undesirability of excess adhesive seepage and therefore teach to abate as much as possible any undesirable effects of any possible excess adhesive seepage”. The Examiner also cites col. 4, lines 11-13 of ROBINS, col. 9, line 65 to col. 10, line 10 of SJOSTEDT, col. 3, lines 18-20 and claim 4 of PARASIN, and col. 1, lines 63-67, col. 2, lines 32-36, col. 3, lines 18-20, and col. 4, lines 33-35 of RYTHER.

Applicant submits that none of the above-noted applied documents discloses or suggests that the pre-applied adhesive layer or the pre-applied layer of a substance which activates an adhesive is applied in an amount which is insufficient to cause any excess to well out onto a decorative surface of the flat structural panels when the flat structural panels are joined together.

Again, the Examiner has acknowledged that AT '560 lacks the recited adhesive between the tongue and groove joints.

While Applicant does not dispute that DE '962 teaches a tongue and groove connection between panels as well as the factory application of glue to adjoining areas, the Examiner has failed to appreciate that the factory application of an adhesive is not a *per se* disclosure of a pre-applied adhesive or pre-applied substance because, as will be explained below, a pre-applied adhesive or substance is a type of adhesive or substance that is simply not disclosed or suggested by the applied documents.

The Examiner has also ignored the noted deficiencies of these documents. As explained above, AT '560 does not teach the use of any adhesive in a locking tongue and groove joint. Moreover, DE '962 merely discloses a contact glue which requires that the mating surfaces "be pressed together with a considerable degree of pressure, making it impossible to additionally adjust the glued joint in the longitudinal direction for the purpose of closing a transverse joint." Thus, even if these documents were properly combinable (which Applicant disputes) they would nevertheless not disclose or suggest the unique combination of three features in the connection of flat structural panels: that is, (1) a tongue and groove connection with divergent sides; (2) that both the tongue

and the groove have a locking mechanisms or elements; and (3) that either the tongue, or the groove, or both of these devices, have a pre-applied adhesive or an adhesive substance as defined above.

ROBINS fails to cure the deficiencies of the above-noted documents. ROBINS relates to an adhesive connection between tube parts of a waveguide (see col. 4, lines 7-13). Furthermore, whereas the invention recites the application of an amount which is insufficient to cause any excess to well out onto a decorative surface of the flat structural panels when the flat structural panels are joined together, ROBINS specifically discloses to apply an amount which "completely fills the void between the butt joint sections 12, 12' (see col. 4, lines 8-10).

SJOSTEDT fails to cure the deficiencies of the above-noted documents. SJOSTEDT relates to an adhesive connection between parts of a shipping container (see Abstract). Furthermore, whereas the invention recites the application of an amount which is insufficient to cause any excess to well out onto a decorative surface of the flat structural panels when the flat structural panels are joined together, SJOSTEDT specifically discloses that "[e]xcess adhesive material A in the joint 292 can be relieved into the spaces or the cavity 302 so as not to interfere with accurate fit-up of adjoining side panels" (see col. 10, lines 4-8).

PARASIN also fails to cure the deficiencies of the above-noted documents. Whereas the invention recites the application of an amount which is insufficient to cause any excess to well out onto a decorative surface of the flat structural panels when the flat structural panels are joined together, PARASIN specifically discloses that

"[w]hen assembling joints, glue may be applied to the tongue and groove profiles, the application of glue is optional. The spaces 42 between the tongue head and the groove head chamfered surfaces define a gap to accommodate excess glue." See col. 3, lines 16-20.

RYTHER also fails to cure the deficiencies of the above-noted documents. Again, whereas the invention recites the application of an amount which is insufficient to cause any excess to well out onto a decorative surface of the flat structural panels when the flat structural panels are joined together, RYTHER merely relates to an adhesive connection between ribs of a structural panel (see Abstract) and specifically discloses a joint which accommodates "any excess glue forced out by the joining process" (see col. 3, lines 13-20 and col. 4, lines 23-35).

Thus, the Examiner is not correct that any of the above-noted documents, and in particular, each of ROBINS, SJOSTEDT, PARASIN and RYTHER, disclose or suggest that the pre-applied adhesive layer or the pre-applied layer of a substance which activates an adhesive is applied in an amount which is insufficient to cause any excess to well out onto a decorative surface of the flat structural panels when the flat structural panels are joined together.

Because the combination of the above-noted documents fails to disclose, or even suggest, at least the above-noted features of the instant invention, Applicant submits that no proper combination of these documents renders unpatentable the combination of features recited in at least dependent claim 32.



Claim 33

Claim 33 recites the configuration of claim 1 and that the pre-applied adhesive layer or the pre-applied layer of a substance which activates an adhesive is applied in an amount which is insufficient to cause any excess to well out onto a surface of the flat structural components when the flat structural components are joined together. No proper combination of the above-noted documents discloses or suggests these additional features.

The Examiner opines that the amount of adhesive which is applied would be obvious to one having ordinary skill in the art and alternatively that each of ROBINS, SJOSTEDT, PARASIN and RYTHER "recognize the undesirability of excess adhesive seepage and therefore teach to abate as much as possible any undesirable effects of any possible excess adhesive seepage". The Examiner also cites col. 4, lines 11-13 of ROBINS, col. 9, line 65 to col. 10, line 10 of SJOSTEDT, col. 3, lines 18-20 and claim 4 of PARASIN, and col. 1, lines 63-67, col. 2, lines 32-36, col. 3, lines 18-20, and col. 4, lines 33-35 of RYTHER.

Applicant submits that the Examiner has failed to establish a *prima facie* case of obviousness. Applicant submits that none of the above-noted applied documents discloses or suggests that the pre-applied adhesive layer or the pre-applied layer of a substance which activates an adhesive is applied in an amount which is insufficient to cause any excess to well out onto a surface of the flat structural components when the flat structural components are joined together.

Again, the Examiner has acknowledged that AT '560 lacks the recited adhesive between the tongue and groove joints.

While Applicant does not dispute that DE '962 teaches a tongue and groove connection between panels as well as the factory application of glue to adjoining areas, the Examiner has failed to appreciate that the factory application of an adhesive is not a *per se* disclosure of a pre-applied adhesive or pre-applied substance because, as will be explained below, a pre-applied adhesive or substance is a type of adhesive or substance that is simply not disclosed or suggested by the applied documents.

The Examiner has also ignored the noted deficiencies of these documents. As explained above, AT '560 does not teach the use of any adhesive in a locking tongue and groove joint. Moreover, DE '962 merely discloses a contact glue which requires that the mating surfaces "be pressed together with a considerable degree of pressure, making it impossible to additionally adjust the glued joint in the longitudinal direction for the purpose of closing a transverse joint." Thus, even if these documents were properly combinable (which Applicant disputes) they would nevertheless not disclose or suggest the unique combination of three features in the connection of flat structural panels: that is, (1) a tongue and groove connection with divergent sides; (2) that both the tongue and the groove have a locking mechanisms or elements; and (3) that either the tongue, or the groove, or both of these devices, have a pre-applied adhesive or an adhesive substance as defined above.

ROBINS fails to cure the deficiencies of the above-noted documents. ROBINS relates to an adhesive connection between tube parts of a waveguide (see col. 4, lines

7-13). Furthermore, whereas the invention recites the application of an amount which is insufficient to cause any excess to well out onto a decorative surface of the flat structural panels when the flat structural panels are joined together, ROBINS specifically discloses to apply an amount which “completely fills the void between the butt joint sections 12, 12’ (see col. 4, lines 8-10).

SJOSTEDT fails to cure the deficiencies of the above-noted documents.

SJOSTEDT relates to an adhesive connection between parts of a shipping container (see Abstract). Furthermore, whereas the invention recites the application of an amount which is insufficient to cause any excess to well out onto a decorative surface of the flat structural panels when the flat structural panels are joined together, SJOSTEDT specifically discloses that “[e]xcess adhesive material A in the joint 292 can be relieved into the spaces or the cavity 302 so as not to interfere with accurate fit-up of adjoining side panels” (see col. 10, lines 4-8).

PARASIN also fails to cure the deficiencies of the above-noted documents.

Whereas the invention recites the application of an amount which is insufficient to cause any excess to well out onto a decorative surface of the flat structural panels when the flat structural panels are joined together, PARASIN specifically discloses that “[w]hen assembling joints, glue may be applied to the tongue and groove profiles, the application of glue is optional. The spaces 42 between the tongue head and the groove head chamfered surfaces define a gap to accommodate excess glue.” See col. 3, lines 16-20.

RYTHER also fails to cure the deficiencies of the above-noted documents. Again, whereas the invention recites the application of an amount which is insufficient to cause any excess to well out onto a decorative surface of the flat structural panels when the flat structural panels are joined together, RYTHER merely relates to an adhesive connection between ribs of a structural panel (see Abstract) and specifically discloses a joint which accommodates "any excess glue forced out by the joining process" (see col. 3, lines 13-20 and col. 4, lines 23-35).

Thus, the Examiner is not correct that any of the above-noted documents, and in particular, each of ROBINS, SJOSTEDT, PARASIN and RYTHER, disclose or suggest that the pre-applied adhesive layer or the pre-applied layer of a substance which activates an adhesive is applied in an amount which is insufficient to cause any excess to well out onto a surface of the flat structural components when the flat structural components are joined together.

Because the combination of the above-noted documents fails to disclose, or even suggest, at least the above-noted features of the instant invention, Applicant submits that no proper combination of these documents renders unpatentable the combination of features recited in at least dependent claim 33.

#### Claim 35

Claim 35 recites the configuration of claim 34 and that the pre-applied adhesive layer or the pre-applied layer of a substance which activates an adhesive is applied in an amount which is insufficient to cause any excess to well out onto a surface of the flat structural components when the flat structural components are joined together. No

proper combination of the above-noted documents discloses or suggests these additional features.

Since this claim recites substantially the same features as claim 33, Applicant hereby incorporates by reference the arguments noted above with regard to claim 33.

Because the combination of the above-noted documents fails to disclose, or even suggest, at least the above-noted features of the instant invention, Applicant submits that no proper combination of these documents renders unpatentable the combination of features recited in at least dependent claim 35.

**Claims 32, 33 and 35 were rejected under 35 U.S.C. § 103(a) as being unpatentable over AT 405 560 in view of DE 297 03 962 and U.S. Patent No. 6,004,417 issued to ROESCH et al., and further in view of any of U.S. Patent No. 6,398,902 issued to ROBINS et al., U.S. Patent No. 5,678,715 issued to SJOSTEDT et al., U.S. Patent No. 5,165,826 issued to PARASIN, and U.S. Patent No. 5,157,892 issued to RYTHER.**

Claim 32

Claim 32 recites the configuration of claim 31 and wherein the pre-applied adhesive layer or the pre-applied layer of a substance which activates an adhesive is applied in an amount which is insufficient to cause any excess to well out onto a decorative surface of the flat structural panels when the flat structural panels are joined together. No proper combination of the above-noted documents discloses or suggests these additional features.

The Examiner opines that the amount of adhesive which is applied would be obvious to one having ordinary skill in the art and alternatively that each of ROBINS, SJOSTEDT, PARASIN and RYTHER "recognize the undesirability of excess adhesive seepage and therefore teach to abate as much as possible any undesirable effects of any possible excess adhesive seepage". The Examiner also cites col. 4, lines 11-13 of ROBINS, col. 9, line 65 to col. 10, line 10 of SJOSTEDT, col. 3, lines 18-20 and claim 4 of PARASIN, and col. 1, lines 63-67, col. 2, lines 32-36, col. 3, lines 18-20, and col. 4, lines 33-35 of RYTHER.

Applicant submits that none of the above-noted applied documents discloses or suggests that the pre-applied adhesive layer or the pre-applied layer of a substance which activates an adhesive is applied in an amount which is insufficient to cause any excess to well out onto a decorative surface of the flat structural panels when the flat structural panels are joined together.

Again, the Examiner has acknowledged that AT '560 lacks the recited adhesive between the tongue and groove joints.

While Applicant does not dispute that DE '962 teaches a tongue and groove connection between panels as well as the factory application of glue to adjoining areas, the Examiner has failed to appreciate that the factory application of an adhesive is not a *per se* disclosure of a pre-applied adhesive or pre-applied substance because, as will be explained below, a pre-applied adhesive or substance is a type of adhesive or substance that is simply not disclosed or suggested by the applied documents.

The Examiner has also ignored the noted deficiencies of these documents. As explained above, AT '560 does not teach the use of any adhesive in a locking tongue and groove joint. Moreover, DE '962 merely discloses a contact glue which requires that the mating surfaces "be pressed together with a considerable degree of pressure, making it impossible to additionally adjust the glued joint in the longitudinal direction for the purpose of closing a transverse joint." Thus, even if these documents were properly combinable (which Applicant disputes) they would nevertheless not disclose or suggest the unique combination of three features in the connection of flat structural panels: that is, (1) a tongue and groove connection with divergent sides; (2) that both the tongue and the groove have a locking mechanisms or elements; and (3) that either the tongue, or the groove, or both of these devices, have a pre-applied adhesive or an adhesive substance as defined above.

Applicant also disputes the relevancy of ROESCH, as this document is completely silent with regard to a pre-applied adhesive layer or activator substance. Whereas the invention relates to flat structural components or panels using a tongue and groove locking connection having a pre-applied adhesive or adhesive activator, ROESCH relates to a connection between plastic pipe parts which can be pre-applied with an adhesive (see Fig. 3).

ROBINS fails to cure the deficiencies of the above-noted documents. ROBINS relates to an adhesive connection between tube parts of a waveguide (see col. 4, lines 7-13). Furthermore, whereas the invention recites the application of an amount which is insufficient to cause any excess to well out onto a decorative surface of the flat

structural panels when the flat structural panels are joined together, ROBINS specifically discloses to apply an amount which “completely fills the void between the butt joint sections 12, 12’ (see col. 4, lines 8-10).

SJOSTEDT fails to cure the deficiencies of the above-noted documents. SJOSTEDT relates to an adhesive connection between parts of a shipping container (see Abstract). Furthermore, whereas the invention recites the application of an amount which is insufficient to cause any excess to well out onto a decorative surface of the flat structural panels when the flat structural panels are joined together, SJOSTEDT specifically discloses that “[e]xcess adhesive material A in the joint 292 can be relieved into the spaces or the cavity 302 so as not to interfere with accurate fit-up of adjoining side panels” (see col. 10, lines 4-8).

PARASIN also fails to cure the deficiencies of the above-noted documents. Whereas the invention recites the application of an amount which is insufficient to cause any excess to well out onto a decorative surface of the flat structural panels when the flat structural panels are joined together, PARASIN specifically discloses that “[w]hen assembling joints, glue may be applied to the tongue and groove profiles, the application of glue is optional. The spaces 42 between the tongue head and the groove head chamfered surfaces define a gap to accommodate excess glue.” See col. 3, lines 16-20.

RYTHER also fails to cure the deficiencies of the above-noted documents. Again, whereas the invention recites the application of an amount which is insufficient to cause any excess to well out onto a decorative surface of the flat structural panels



when the flat structural panels are joined together, RYTHER merely relates to an adhesive connection between ribs of a structural panel (see Abstract) and specifically discloses a joint which accommodates “any excess glue forced out by the joining process” (see col. 3, lines 13-20 and col. 4, lines 23-35).

Thus, the Examiner is not correct that any of the above-noted documents, and in particular, each of ROBINS, SJOSTEDT, PARASIN and RYTHER, disclose or suggest that the pre-applied adhesive layer or the pre-applied layer of a substance which activates an adhesive is applied in an amount which is insufficient to cause any excess to well out onto a decorative surface of the flat structural panels when the flat structural panels are joined together.

Because the combination of the above-noted documents fails to disclose, or even suggest, at least the above-noted features of the instant invention, Applicant submits that no proper combination of these documents renders unpatentable the combination of features recited in at least dependent claim 32.

### Claim 33

Claim 33 recites the configuration of claim 1 and that the pre-applied adhesive layer or the pre-applied layer of a substance which activates an adhesive is applied in an amount which is insufficient to cause any excess to well out onto a surface of the flat structural components when the flat structural components are joined together. No proper combination of the above-noted documents discloses or suggests these additional features.

The Examiner opines that the amount of adhesive which is applied would be

obvious to one having ordinary skill in the art and alternatively that each of ROBINS, SJOSTEDT, PARASIN and RYTHER “recognize the undesirability of excess adhesive seepage and therefore teach to abate as much as possible any undesirable effects of any possible excess adhesive seepage”. The Examiner also cites col. 4, lines 11-13 of ROBINS, col. 9, line 65 to col. 10, line 10 of SJOSTEDT, col. 3, lines 18-20 and claim 4 of PARASIN, and col. 1, lines 63-67, col. 2, lines 32-36, col. 3, lines 18-20, and col. 4, lines 33-35 of RYTHER.

Applicant submits that none of the above-noted applied documents discloses or suggests that the pre-applied adhesive layer or the pre-applied layer of a substance which activates an adhesive is applied in an amount which is insufficient to cause any excess to well out onto a surface of the flat structural components when the flat structural components are joined together.

Again, the Examiner has acknowledged that AT ‘560 lacks the recited adhesive between the tongue and groove joints.

While Applicant does not dispute that DE ‘962 teaches a tongue and groove connection between panels as well as the factory application of glue to adjoining areas, the Examiner has failed to appreciate that the factory application of an adhesive is not a *per se* disclosure of a pre-applied adhesive or pre-applied substance because, as will be explained below, a pre-applied adhesive or substance is a type of adhesive or substance that is simply not disclosed or suggested by the applied documents.

The Examiner has also ignored the noted deficiencies of these documents. As explained above, AT ‘560 does not teach the use of any adhesive in a locking tongue

and groove joint. Moreover, DE '962 merely discloses a contact glue which requires that the mating surfaces "be pressed together with a considerable degree of pressure, making it impossible to additionally adjust the glued joint in the longitudinal direction for the purpose of closing a transverse joint." Thus, even if these documents were properly combinable (which Applicant disputes) they would nevertheless not disclose or suggest the unique combination of three features in the connection of flat structural panels: that is, (1) a tongue and groove connection with divergent sides; (2) that both the tongue and the groove have a locking mechanisms or elements; and (3) that either the tongue, or the groove, or both of these devices, have a pre-applied adhesive or an adhesive substance as defined above.

Applicant also disputes the relevancy of ROESCH, as this document is completely silent with regard to a pre-applied adhesive layer or activator substance. Whereas the invention relates to flat structural components or panels using a tongue and groove locking connection having a pre-applied adhesive or adhesive activator, ROESCH relates to a connection between plastic pipe parts which can be pre-applied with an adhesive (see Fig. 3).

ROBINS fails to cure the deficiencies of the above-noted documents. ROBINS relates to an adhesive connection between tube parts of a waveguide (see col. 4, lines 7-13). Furthermore, whereas the invention recites the application of an amount which is insufficient to cause any excess to well out onto a decorative surface of the flat structural panels when the flat structural panels are joined together, ROBINS

specifically discloses to apply an amount which “completely fills the void between the butt joint sections 12, 12’ (see col. 4, lines 8-10).

SJOSTEDT fails to cure the deficiencies of the above-noted documents. SJOSTEDT relates to an adhesive connection between parts of a shipping container (see Abstract). Furthermore, whereas the invention recites the application of an amount which is insufficient to cause any excess to well out onto a decorative surface of the flat structural panels when the flat structural panels are joined together, SJOSTEDT specifically discloses that “[e]xcess adhesive material A in the joint 292 can be relieved into the spaces or the cavity 302 so as not to interfere with accurate fit-up of adjoining side panels” (see col. 10, lines 4-8).

PARASIN also fails to cure the deficiencies of the above-noted documents. Whereas the invention recites the application of an amount which is insufficient to cause any excess to well out onto a decorative surface of the flat structural panels when the flat structural panels are joined together, PARASIN specifically discloses that “[w]hen assembling joints, glue may be applied to the tongue and groove profiles, the application of glue is optional. The spaces 42 between the tongue head and the groove head chamfered surfaces define a gap to accommodate excess glue.” See col. 3, lines 16-20.

RYTHER also fails to cure the deficiencies of the above-noted documents. Again, whereas the invention recites the application of an amount which is insufficient to cause any excess to well out onto a decorative surface of the flat structural panels when the flat structural panels are joined together, RYTHER merely relates to an

adhesive connection between ribs of a structural panel (see Abstract) and specifically discloses a joint which accommodates “any excess glue forced out by the joining process” (see col. 3, lines 13-20 and col. 4, lines 23-35).

Thus, the Examiner is not correct that any of the above-noted documents, and in particular, each of ROBINS, SJOSTEDT, PARASIN and RYHER, disclose or suggest that the pre-applied adhesive layer or the pre-applied layer of a substance which activates an adhesive is applied in an amount which is insufficient to cause any excess to well out onto a surface of the flat structural components when the flat structural components are joined together.

Because the combination of the above-noted documents fails to disclose, or even suggest, at least the above-noted features of the instant invention, Applicant submits that no proper combination of these documents renders unpatentable the combination of features recited in at least dependent claim 33.

#### Claim 35

Claim 35 recites the configuration of claim 34 and that the pre-applied adhesive layer or the pre-applied layer of a substance which activates an adhesive is applied in an amount which is insufficient to cause any excess to well out onto a surface of the flat structural components when the flat structural components are joined together. No proper combination of the above-noted documents discloses or suggests these additional features.

Since this claim recites substantially the same features as claim 33, Applicant hereby incorporates by reference the arguments noted above with regard to claim 33.

Because the combination of the above-noted documents fails to disclose, or even suggest, at least the above-noted features of the instant invention, Applicant submits that no proper combination of these documents renders unpatentable the combination of features recited in at least dependent claim 35.

### CONCLUSION

In view of the foregoing, it is submitted that none of the references of record, either taken alone or in any proper combination thereof, anticipate or render obvious Applicant's invention, as recited in each of the pending claims. Accordingly, reconsideration of the outstanding Office Action and allowance of the present application and all the claims therein are respectfully requested and now believed to be appropriate.

Please charge any additional fees necessary for consideration of the papers filed herein and refund excess payments to Deposit Account No. 19-0089.

Respectfully submitted,  
F. KNAUSEDER

A handwritten signature in black ink, appearing to read 'Andrew M. Calderon', is written over a horizontal line.

Andrew M. Calderon  
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September 26, 2008  
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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* VAL MANDRUSOV and DUANE FRIESEN

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Appeal 2008-0114  
Application 10/235,221  
Technology Center 2800

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Decided: July 23, 2008

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Before KENNETH W. HAIRSTON, JOHN A. JEFFERY, and CARLA M.  
KRIVAK, *Administrative Patent Judges*.

KRIVAK, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellants appeal under 35 U.S.C. § 134 from a final rejection of  
claims 1-20.<sup>1</sup> We have jurisdiction under 35 U.S.C. § 6(b).

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<sup>1</sup> The drawings were objected to and claims 6-15 were rejected under 35  
U.S.C. § 112, second paragraph. The Examiner withdrew this objection and  
rejection in the Answer mailed July 12, 2007 (Ans. 5), the most recent  
Answer, to which we refer throughout this opinion.

We reverse.

### STATEMENT OF CASE

Appellants' claimed invention is an electromagnetic interference (EMI) backshell assembly suitable for applications prone to high levels of radiated electromagnetic emissions (Spec. 1:11-13). The invention is directed to a method, system, and device having an electrical connector, an insulative shell, a housing, and a threaded fastener. Appellants' invention allows for separate movement of electrical conductors and shielding components to allow each to be adjusted for desired performance and for the signal carrying components to float relative to the shielding or housing (Spec. 2:24-27).

Claim 1, reproduced below, is representative of the subject matter on appeal.

1. A device comprising:

an electrical connector having a plurality of electrical conductors adapted to mate with a matching connector;

an insulative shell encasing a portion of the electrical connector,

a housing having an interior adapted to receive the electrical connector, the housing having a channel adapted to permit independent movement of the electrical connector relative to the housing, the housing including an electrically conductive material;  
and

a threaded fastener coupled to the housing and adapted to mate with a corresponding fastener of the matching connector.



#### REFERENCES

Karir	US 6,017,245	Jan. 25, 2000
Imai	US 6,588,937 B2	Jul. 8, 2003 (Filed Mar. 27, 2002)
Komenda	US 6,592,387 B2	Jul. 15, 2003 (Filed Dec. 26, 2000)

The Examiner rejected claims 1-20 under 35 U.S.C. § 103(a) as obvious based upon the teachings of Karir and Komenda (Ans. 3). The Examiner rejected claims 1-4, 16, and 18-20 under 35 U.S.C. § 103(a) as obvious based upon the teachings of Karir and Imai (Ans. 4).

Appellants contend that claims 1-20 were improperly rejected and that the Examiner has not provided a prima facie case of obviousness (Br. 7 and 10)

#### ISSUES

Did the Examiner err in rejecting claims 1-20 under 35 U.S.C. § 103(a) as obvious based upon the teachings of Karir and Komenda?

Did the Examiner err in rejecting claims 1-4, 16, and 18-20 under 35 U.S.C. § 103(a) as obvious based upon the teachings of Karir and Imai?

#### PRINCIPLES OF LAW

We note that the Court of Appeals for the Federal Circuit has determined that the motivation to combine under § 103 must come from a teaching or suggestion within the *prior art*, within the *nature of the problem to be solved*, or within *the general knowledge of a person of ordinary skill* in the field of the invention, to look to particular sources, to select particular elements, and to combine them as combined by the inventor. *Ruiz v. A.B.*

*Chance Co.*, 234 F.3d 654, 665 (Fed. Cir. 2000) (emphasis added). Further, our reviewing court has recently reaffirmed that:

an implicit motivation to combine exists not only when a suggestion may be gleaned from the prior art as a whole, but when the ‘improvement’ is technology-independent and the combination of references results in a product or process that is more desirable, for example because it is stronger, cheaper, cleaner, faster, lighter, smaller, more durable, or more efficient . . . In such situations, the proper question is whether the ordinary artisan possesses knowledge and skills rendering him *capable* of combining the prior art references.

*DyStar Textilfarben GmbH & Co. Deutschland KG v. C.H. Patrick Co.*, 464 F.3d 1356, 1368 (Fed. Cir. 2006).

The Examiner bears the initial burden of presenting a *prima facie* case of obviousness. *In re Oetiker*, 977 F.2d 1443, 1445 (Fed. Cir. 1992). If that burden is met, then the burden shifts to the Appellants to overcome the *prima facie* case with argument and/or evidence. *In re Mayne*, 104 F.3d 1339, 1342 (Fed. Cir. 1997).

Section 103 forbids issuance of a patent when “the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.”

*KSR Int’l Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 1734 (2007).

The Examiner’s “articulated reasoning . . . in the rejection must possess a rational underpinning to support the legal conclusion of obviousness.” *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006). The Supreme Court, reiterating this reasoning by citing *In re Kahn*, 441 F.3d at

988, stating that “rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *KSR Int’l Co. v. Teleflex Inc.*, 127 S. Ct. at 1741.

One important indicium of nonobviousness is “teaching away” from the claimed invention by the prior art. *In re Dow Chemical Co.*, 837 F.2d 469, 473 (Fed. Cir. 1988).

As to the specific question of “teaching away,” our reviewing court in *In re Gurley*, 27 F.3d 551, 553 (Fed. Cir. 1994) stated:

A reference may be said to teach away when a person of ordinary skill, upon [examining] the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path that was taken by the applicant.

## ANALYSIS

### *Karir and Komenda*

The Examiner asserts that Karir teaches all the features of Appellants’ invention except that it “is not slidably coupled to the housing” (Ans. 3). The Examiner further asserts that Komenda discloses a spring providing a force that keeps two connectors together and provides them with freedom of movement within a tray while maintaining connection (Ans. 3). It is the Examiner’s position that it would thus be obvious to a person having ordinary skill in the art to modify Karir such that the connector would be slidably coupled to a housing using the spring taught by Komenda “because the spring would help make the connection by pushing the two mating connectors toward each other and provide a force that keeps the two

connectors together and gives the connectors freedom of movement within a housing while still maintaining connection” (Ans. 4).

Appellants contend that the principles of operation of Karir and Komenda differ (Br. 9). According to Appellants, Karir allows no movement between the connector and the housing (col. 4, ll. 55-67) — an argument the Examiner concedes as correct (Ans. 5)). Appellants emphasize, however, that unlike Karir, Komenda allows the connector freedom to move in all directions (col. 5, ll. 21-23) (Br. 9). Thus, Appellants contend that these references teach away from each other and combining them would render one or the other unsatisfactory for its intended purpose (Br. 9). The Examiner disagrees and asserts that the combination of Karir and Komenda “show a device with a movable electrical connector within a housing of the device is known in the art at the time the invention was made” (Ans. 6).

In our view, the Examiner has provided no reasonable basis to combine Karir and Komenda aside from what is taught by Appellants’ disclosure. That is, the Examiner has merely cited a secondary reference that permits independent movement with respect to a housing using a spring and asserted that the base reference can somehow be modified to arrive at the claimed invention in light of this teaching. However, modifying Karir in the manner proposed by the Examiner must not frustrate the principles of operation of the respective references. In this regard, we agree with Appellants that the Examiner has failed to show how the proposed combination would not frustrate “the principle of operation delineated by Karir” and show “how the connector of Komenda can be made rigid without frustrating the principles of operation delineated by Komenda” (Br. 10). As

such, we agree with Appellants that combining these teachings in the manner proposed by the Examiner runs counter to the references' principles of operation. We also find the combination is tantamount to impermissible hindsight reconstruction of the invention using Appellants' disclosure as a blueprint.

Furthermore, we are not persuaded by the Examiner's arguments and agree with Appellants that "[t]he Office has not set forth reasoning to explain the desirability of modifying the non-sliding connector of Karir for use in a structure having a sliding connector, as in Komenda" (Br. 10). For these reasons, we find the Examiner did not establish a prima facie case of obviousness over the teachings of Karir and Komenda with respect to claims 1-20.

*Karir and Imai*

The Examiner rejected claims 1-4, 16, and 18-20 as obvious over Karir and Imai. The Examiner asserts that the housing structure of Imai is the same as Appellants (Ans. 4). The Examiner further asserts that connectors include coil springs that press ferrules toward mating connectors to provide a force that keeps the two connectors together and gives the connectors freedom of movement within the housing while maintaining connection (Ans. 4). It is the Examiner's position that it would thus be obvious to modify the device taught by Karir to have a connector slidably coupled to a housing of the device taught by Imai to provide a force that keeps two connectors together and provide "freedom of movement within the housing while still maintaining connection" (Ans. 5).

Appellants contend that Karir teaches away from "'independent movement' of the connector relative to the housing" and further, the nature

of Karir negates a need for independent movement of the connector relative to the housing (Br. 10). It should be further noted that Imai teaches that after the locking of the two connections, the fiber returns to its pre-compression state and the compressive force no longer works (col. 9, ll. 25-29; ll. 51-57).

We agree with Appellants that the Examiner has not provided a reasonable basis for “modifying the non-sliding connector of Karir for use in a structure having a sliding connector, as in Imai” (Br. 11). As with the previous rejection, we find the Examiner’s combination of references is untenable and tantamount to impermissible hindsight reconstruction of the invention. For these reasons, we find that the Examiner did not establish a *prima facie* case of obviousness over the teachings of Karir and Imai with respect to claims 1-4, 16, and 18-20.

#### CONCLUSION

We therefore conclude that the Examiner erred in rejecting claims 1-20 under 35 U.S.C. § 103(a).

#### DECISION

The decision of the Examiner rejecting claims 1-20 is reversed.

Appeal 2008-0114  
Application 10/235,221

REVERSED

tdl/gw

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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* CHRISTOPHER Y. BLAICHER

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Appeal 2008-0131  
Application 10/618,500  
Technology Center 2100

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Decided: July 10, 2008

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Before JOSEPH L. DIXON, JEAN R. HOMERE, and JAY P. LUCAS,  
*Administrative Patent Judges.*

DIXON, *Administrative Patent Judge.*

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. § 134 from the Examiner's final rejection of claims 1-63. Claims 64-69 have been withdrawn from consideration. We have jurisdiction under 35 U.S.C. § 6(b).

We REVERSE.



## BACKGROUND

Appellant's invention relates to reorganizing database objects using variable length keys. (Spec. 1). An understanding of the invention can be derived from a reading of exemplary claim 1, which is reproduced below.

1. A data sort method, comprising:

obtaining a plurality of data records and, for each data record  
extracting key information,

expanding the extracted key information, and

storing the expanded key information in a key record, wherein  
the expanded key information is not stored in intermediate  
storage;

sorting the plurality of key records based on the expanded key  
information;

reorganizing the plurality of data records to correspond to the order of  
the sorted plurality of key records; and

storing the reorganized plurality of data records without their  
associated expanded key information to a working storage.

## PRIOR ART

The prior art references of record relied upon by the Examiner in  
rejecting the appealed claims are:

Matsuda	US 5,247,665	Sep. 21, 1993
Ferguson	US 5,274,805	Dec. 28, 1993

Applicant's Admitted Prior Art (AAPA).

## REJECTIONS

Claims 1-12, 16-24, 27-37, and 40-52 are rejected under 35 U.S.C. § 103(a) as being unpatentable over AAPA in view of Matsuda.

Claims 13-15, 25-26, 38-39, and 53-63 are rejected under 35 U.S.C. § 103(a) as being unpatentable over AAPA in view of Matsuda and further in view of Ferguson.

Rather than reiterate the conflicting viewpoints advanced by the Examiner and Appellant regarding the above-noted rejection, we refer to the Examiner's Answer (mailed Dec. 26, 2006) for the reasoning in support of the rejections, and to Appellant's Brief (filed Oct. 13, 2006) for the arguments thereagainst.

## OPINION

In reaching our decision in this appeal, we have carefully considered Appellant's Specification and claims, the applied prior art references, and the respective positions articulated by Appellant and the Examiner. As a consequence of our review, we determine the following.

### *35 U.S.C. § 103(a)*

Section 103 forbids issuance of a patent when 'the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.'

*KSR Int'l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1734 (2007).

In *KSR*, the Supreme Court emphasized "the need for caution in granting a patent based on the combination of elements found in the prior art," *Id.* at 1739, and discussed circumstances in which a patent might be determined to be obvious. *KSR*, 127 S. Ct. at 1739 (citing *Graham v. John Deere Co.*, 383 U.S. 1, 12 (1966)). The Court reaffirmed principles based on its precedent that "[t]he combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results." *Id.* The operative question in this "functional approach" is thus "whether the improvement is more than the predictable use of prior art elements according to their established functions." *Id.* at 1740.

The Federal Circuit recently recognized that "[a]n obviousness determination is not the result of a rigid formula disassociated from the consideration of the facts of a case. Indeed, the common sense of those skilled in the art demonstrates why some combinations would have been obvious where others would not." *Leapfrog Enters., Inc. v. Fisher-Price, Inc.*, 485 F.3d 1157, 1161 (Fed. Cir. 2007) (citing *KSR*, 127 S. Ct. 1727, 1739 (2007)). The Federal Circuit relied in part on the fact that Leapfrog had presented no evidence that the inclusion of a reader in the combined device was "uniquely challenging or difficult for one of ordinary skill in the art" or "represented an unobvious step over the prior art." *Id.* (citing *KSR*, 127 S. Ct. at 1740-41).

One cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. *In re Merck & Co., Inc.*, 800 F.2d 1091, 1097 (Fed. Cir. 1986).

With respect to independent claim 1, from our review of the teachings of the AAPA and Matsuda, we agree with Appellant that the combined teachings of AAPA and Matsuda does not teach or fairly suggest the invention as recited in independent claim 1. From our review of AAPA figure 1, we find that the AAPA expressly teaches in step 110 that the variable length key fields are padded to a fixed length key fields of a size greater enough to accommodate any value that the key may assume and that once padded the record is written to an intermediate file. (Spec. 2). Therefore, we look to the teachings of Matsuda to find a teaching that teaches or fairly suggests not to store the padded key fields.

From our review of the teachings of Matsuda and the Examiner's rejection as stated in the Answer, we do not find a teaching or fair suggestion of not storing the expanded key information as recited in independent claim 1. In the Answer at page 5, the Examiner's rejection relies upon the teachings of Matsuda in the Abstract and column 6, the Examiner identified that the key fields are stored to "main memory" rather than any "intermediate storage." Here, the Examiner seems to take the teachings of Matsuda out of context with respect to the instant claimed invention and places more emphasis on the expressed labels of "intermediate" and "main" memory rather than the concept of whether or not the padded key information is stored as intended in the instant claimed invention.

Here, with an express teaching in the admitted prior art to store the padded key information, we do not find a sufficient teaching as identified by the Examiner to suggest that the padded key information should not be

stored. Therefore, we essentially find that the AAPA teaches away from not storing the padded key information which is used in the data sort method.

Therefore, we do not find that the Examiner has set forth a sufficient initial showing of obviousness of the claimed invention over the combination of the admitted prior art and Matsuda. Therefore, we will reverse the rejection of independent claim 1 and dependent claims 2-12, 17-24, 28-37, and 41-52.

We find similar limitations in independent claims 16, 27, and 40.

Therefore, we cannot sustain the rejection of these independent claims and their respective dependent claims. Additionally, we find similar limitations in independent claim 55 and the Examiner has relied upon the teachings of the admitted prior art and Matsuda in the same manner and additionally relies upon the teachings of Ferguson for additional limitations. We do not find that the Examiner has identified how the combination teaches or fairly suggests the invention as discussed above with respect to independent claim 1. Therefore, we find that the Examiner has not set forth a sufficient initial showing of obviousness of independent claim 55, and we will not sustain the rejection of independent claim 55 and dependent claims 56-63, 13-15, 25-26, 38-39, 53, and 54 for the reasons discussed above.

Appeal 2008-0131  
Application 10/618,500

CONCLUSION.

In summary, we have reversed the rejection of claims 1-63 under  
35 U.S.C. § 103(a).

REVERSED

rwk

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The opinion in support of the decision being entered today was not written for publication in a law journal and is not binding precedent of the Board.

Paper No. 21

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte NADIM HADDAD, CHARLES N. ALCORN,  
JONATHAN MAIMON, LEONARD R. ROCKETT  
and SCOTT DOYLE

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Appeal No. 2003-2013  
Application No. 09/491,230

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ON BRIEF

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Before KIMLIN, JEFFREY T. SMITH and PAWLIKOWSKI, Administrative Patent Judges.

KIMLIN, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal from the final rejection of claims 6-19.

Claim 6 is illustrative:

6. A resistor, comprising:

a first passivation layer overlying a semiconductor substrate having a plurality of transistors;

Appeal No. 2003-2013  
Application No. 09/491,230

a first bottom contact and a second bottom contact formed through said first passivation layer at a first contact location and a second contact location, respectively;

a resistive film formed over said first passivation layer to serve as a resistor, wherein said resistive film has a first end and a second end;

a first top contact connecting said first bottom contact to said first end of said resistive film; and

a second top contact connecting said second bottom contact to said second end of said resistive film.

In the rejection of the appealed claims, the examiner relies upon the following reference:

Matthews	5,182,225	Jan. 26, 1993
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Appellants' claimed invention is directed to a resistor wherein first and second top contacts connect first and second bottom contacts to first and second ends of a resistive film.

Appealed claims 6, 7, 11, 12 and 16-19 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Matthews. Claims 8-10 and 13-15 stand rejected under 35 U.S.C. § 103 as being unpatentable over Matthews.

We have thoroughly reviewed the respective positions advanced by appellants and the examiner. In so doing, we concur with appellants that the prior art cited by the examiner neither describes the claimed invention within the meaning of § 102 nor



Appeal No. 2003-2013  
Application No. 09/491,230

renders it obvious within the meaning of § 103. Accordingly, we will not sustain the examiner's rejections.

The basis of the examiner's rejections over Matthews is finding that the gate and source regions of Matthews meet the requirements for the claimed first and second bottom contacts, respectively. In other words, it is the examiner's position that the gate and source of Matthews are contacts which meet the requirements of the presently claimed first and second bottom contacts. Appellants, on the other hand, contend that when one of ordinary skill in the art interprets the claim language in light of the specification, such a skilled artisan would not read the first and second bottom contacts as including the gate and source regions of Matthews.

We must acknowledge that there is a certain appeal in the examiner's position. Manifestly, the source and gate of Matthews are made of a conductive material and serve to pass current from one body to another, as urged by the examiner. However, it is well settled that claim language is given its broadest reasonable meaning during prosecution as it would be understood by one of ordinary skill in the art, taking into consideration the description of the applicant's specification. In re Morris,

Appeal No. 2003-2013  
Application No. 09/491,230

127 F.3d 1048, 1054-55, 44 USPQ2d 1023, 1027-28 (Fed. Cir. 1997). In the present case, appellants' specification describes that the contacts, or studs, are made from tungsten, aluminum, or copper, and the specification also discloses other areas of the device as gate and source regions (14a, 14b and 17a, 17b, respectively). Hence, we find it reasonable to conclude that one of ordinary skill in the art would not interpret the claimed first and second bottom contacts as inclusive of gate and source regions and, therefore, it is our opinion that the gate and source regions of Matthews are not a description of the claimed bottom contacts within the meaning of § 102. In our view, appellants' arguments during prosecution establish, via file wrapper estoppel, that the claimed first and second bottom contacts do not encompass gate and source regions.

As for the examiner's § 103 rejection, the examiner has not presented a rationale why it would have been obvious for one of ordinary skill in the art to modify Matthews to incorporate the claimed first and second bottom contacts in addition to the gate and source regions.

Appeal No. 2003-2013  
Application No. 09/491,230

In conclusion, based on the foregoing, the examiner's  
decision rejecting the appealed claims is reversed.

REVERSED

EDWARD C. KIMLIN	)	
Administrative Patent Judge	)	
	)	
	)	
	)	
	)	
JEFFREY T. SMITH	)	BOARD OF PATENT
Administrative Patent Judge	)	APPEALS AND
	)	INTERFERENCES
	)	
	)	
BEVERLY PAWLIKOWSKI	)	
Administrative Patent Judge	)	

ECK:clm

Appeal No. 2003-2013  
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